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Increased conspiracy beliefs among ethnic and Muslim minorities

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Abstract

In the present study, we tested whether Muslim minority members are more susceptible to conspiracy theories than majority members in the Netherlands. We examined conspiracy theories that are relevant (portraying the Muslim community as victim or Jewish people as perpetrators) and irrelevant for participants' Muslim identity (about the 2007 financial crisis, and other theories such as that the moon landings were fake). Results revealed that Muslims believed both identity-relevant and irrelevant conspiracy theories more strongly than non-Muslims. These differences could not be attributed to the contents of Muslim faith: Ethnic minority status exerted similar effects independent of Muslim identity. Instead, evidence suggested that feelings of both personal and group-based deprivation independently contribute to belief in conspiracy theories. We conclude that feelings of deprivation lead marginalized minority members to perceive the social and political system as rigged, stimulating belief in both identity-relevant and irrelevant conspiracy theories.

KEYWORDS

conspiracy theories, deprivation, minority groups, Muslim identity

1 | INTRODUCTION

Many minority members face real problems such as marginalization, discrimination, and economic hardship. These problems may inspire a range of less realistic conspiracy theories, however. Although conspiracies that harm minorities can and do occur (e.g., the Tuskegee Syphilis experiment), large portions of African Americans believe far-fetched theories such as that birth control is a form of Black genocide, a conspiracy theory that predicts decreased contraceptive use (Thorburn & Bogart, 2005; see also Bird & Bogart, 2003). Furthermore, Black as opposed to White Americans more strongly believed conspiracy theories such as that AIDS was created in the laboratory to infect Black people or that the government deliberately makes drugs available in Black neighborhoods. These findings were attributable to perceived system blame, that is, the extent to which participants blamed the realistic problems that the African American community faces to prejudice and discrimination (Crocker, Luhtanen, Broadnax, & Blaine, 1999). Conspiracy theories hence provide an explanatory framework for the predicaments of marginalized minority groups.

Most previous research on this topic is restricted, however, by focusing on explicitly racial conspiracy theories involving a White plot that harms the Black community. This approach may not appreciate the full implications of minority group status for the societal phenomenon of conspiracy theories. Conspiracy theories are defined as allegations that a group of actors colludes in secret to reach malevolent goals (Bale, 2007), and these goals may or may not be focused on harming the minority group in question. What does minority status imply for the tendency to believe conspiracy theories that are not explicitly racial—such as that the U.S. government hides evidence for the existence of extraterrestrial life or that the Apollo moon landings were filmed in a TV studio? Preliminary findings are mixed and suggest that while ethnic minorities are particularly susceptible to racially relevant conspiracy theories, they also show an increased susceptibility to at least some conspiracy theories irrelevant for race (Goertzel, 1994). In the present contribution, we propose that ethnic and Muslim minorities are more likely than majority members to believe both identity-

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relevant and irrelevant conspiracy theories. Furthermore, we propose a tentative explanation for this phenomenon, namely, that feelings of personal and group-based deprivation independently contribute to belief in conspiracy theories.

2 | MARGINALIZED MINORITIES AND CONSPIRACY THEORIES

Minority group members are likely to suffer from societal deprivation in at least two complementary ways. First, they may experience personal deprivation: not feeling regarded as a full-fledged member of society. Second, they may perceive group-based deprivation: The perception that one's minority group as a whole is deprived of equal opportunities (e.g., Branscombe, Schmitt, & Harvey, 1999; Crocker & Major, 1989). Whereas both levels of deprivation are associated with negative emotions (e.g., anger) and feelings of injustice, they predict different outcome variables. For instance, personal deprivation is particularly associated with individual-level variables (e.g., self-perceptions), but group-based deprivation is particularly associated with group-level variables (e.g., collective action; see Smith, Pettigrew, Pippin, & Bialosiewicz, 2012). Furthermore, perceiving deprivation at both levels is conceptually distinct from conspiracy beliefs: Unlike conspiracy theories, such deprivation (a) does not necessarily occur in secret, (b) is not necessarily produced by a specific group that colluded, and (c) is not always intentional (e.g., implicit stereotypes can lead to unintentional yet realistic deprivation of equality). Yet we propose that both forms of deprivation are relevant for perceivers' susceptibility to conspiracy theories.

Personal deprivation is an aversive experience that predicts increased motivation to make sense of one's life circumstances (Park, 2010). The negative emotions that are associated with personal deprivation activate a suspicious mindset that approaches the social environment with scrutiny. Consistently, people increasingly believe conspiracy theories to the extent that they experience emotions also associated with increased sense-making motivation, such as feeling out of control (Sullivan, Landau, & Rothschild, 2010; Van Prooijen & Acker, 2015; Whitson & Galinsky, 2008), subjective uncertainty (Van Prooijen & Jostmann, 2013; Whitson, Galinsky, & Kay, 2015), and fear (Grzesiak-Feldman, 2013). Moreover, personal experiences of social exclusion increase belief in conspiracy theories (Graeupner & Coman, 2017). These insights suggest that feelings of personal deprivation are related with basic social-cognitive processes that increases susceptibility to conspiracy theories.

Although this hypothesized role of personal deprivation dovetails with research on conspiracy theories, it is unlikely to be the only factor necessary to understand the relationship between minority status and conspiracy theories. One study found strong conspiracy theories among a sample of African Americans independent of how affluent individual participants were (Simmons & Parsons, 2005). The presumed role of group-based deprivation is consistent with theorizing that there is a social dimension to conspiracy theories (Douglas, Cichocka, & Sutton, 2017; Van Prooijen & Van Lange, 2014). Specifically, a conspiracy essentially is a group of people (e.g., politicians; CEOs) plotting to harm a different group (e.g., fellow citizens). It has hence been noted that hostile intergroup relations are associated with conspiracy theories. Research indeed supports the idea that threats to a valued in-group predicts belief in conspiracy theories (Cichocka, Marchlewska, Golec de Zavala, & Olechowski, 2016; Van Prooijen, 2016; Van Prooijen & Van Dijk, 2014).

Both forms of deprivation have one common denominator: Members of a dominant majority group are responsible for the marginalized positions that perceivers and their group have in society. It therefore stands to reason that both forms of deprivation promote the perception that majority group representatives are evil entities that are involved in malevolent plots. We argue that these suspected plots may have goals that are not only racial but also nonracial in content. Acceptance of one conspiracy theory promotes a worldview assuming that hostile conspiracies are responsible for many other events in the world, and research indeed finds that one of the best predictors of belief in one conspiracy theory is belief in a different, unrelated conspiracy theory (Abalakina-Paap, Stephan, Craig, & Gregory, 1999; Goertzel, 1994; Swami et al., 2011; Swami, Chamorro-Premuzic, & Furnham, 2010; Van Prooijen, Douglas, & De Inocencio, 2018; Wood, Douglas, & Sutton, 2012). These arguments suggest that minority members are more likely than majority group members to assume that the social and political system they live in is rigged, prompting beliefs in both identity-relevant and irrelevant conspiracy theories.

In the present research, we examined these ideas by sending a questionnaire to two research panels in the Netherlands, of which one was expected to contain many Muslim minorities. We anticipated that Muslim minorities in Dutch society would experience both forms of deprivation, and hence focused on conspiracy theories that varied in relevance to explain marginalization of Muslims. As conspiracy theories relevant for participants' Muslim identities, we measured belief in conspiracy theories that portray Muslims as victims and conspiracy theories that portray Jewish people as perpetrators. As conspiracy theories less relevant for participants' Muslim identities, we assessed economic conspiracy theories (e.g., about the 2007 financial crisis) and a range of other conspiracy theories (e.g., about the moon landings). Besides Muslim minority status, we also included participants' ethnic minority status to explore whether being an ethnic minority—independent of Muslim identity—would predict increased conspiracy beliefs. Finally, we measured belonging in Dutch society as a proxy for personal deprivation (i.e., low belonging reflects feelings that one is not a full-fledged Dutch citizen) and group-based deprivation.

3 | METHOD

3.1 | Participants and design

We conducted the study in two different samples that were run in parallel (May/June 2016). Data collection was coordinated by "Kieskompas ("Election compass,") a Dutch political research organization that acts in line with the strict regulations of the Dutch Authority for the Protection of Personal Information ("Autoriteit Persoonsgegevens"; registration number m1457347) and with the ethical norms of VU Amsterdam. To acquire as many ethnic and Muslim minorities as possible, we sent out an e-mail link to a panel of

Dutch citizens who voted for the political party "DENK"—a party that specifically focuses on reducing discrimination and improving ethnic minority rights and that is popular among Muslim minorities in the Netherlands (Sample 1). Second, we sent out a link through social media utilizing a "snowballing" method to a variety of public sites, designed to get a mostly Dutch Caucasian sample that was diverse in terms of education and social-economic background (Sample 2). We stopped collecting data once no further responses came in, and prior to any analyses. We had a total of 545 cases in our initial dataset; however, a lot of these cases showed attrition and missing values. We therefore selected only those participants with no missing values on our key dependent variable (belief in conspiracy theories), rendering a final sample of 355 participants (180 men, 168 women, 7 not indicated; M_{age} = 27.33 years; *SD* = 9.41; Sample 1 *n* = 225, Sample 2 *n* = 130).[1] This final sample yields 95% power for a small-to-medium effect size (f^2 = .04).

In both samples, we asked for participants' ethnicity and religion. To investigate ethnicity, we classified participants into Dutch Caucasian (*n* = 113) and ethnic minority (*n* = 237; five missing values). As intended, most ethnic minority participants were from Sample 1 (200 ethnic minority, 25 Caucasian Dutch). Most ethnic minorities in Sample 1 were either Turkish Dutch (*n* = 86) or Moroccan Dutch (*n* = 81)—two prevalent and frequently stigmatized minority groups in Dutch society. The remaining ethnic minorities in Sample 1 were Asian (*n* = 2), mixed race (*n* = 10), Middle Eastern/Arab (*n* = 3), and "Other" (*n* = 18). In Sample 2, the majority of participants were Caucasian Dutch (*n* = 88). The ethnic minority participants in Sample 2 were Asian (*n* = 2), Black (*n* = 3), mixed race (*n* = 16), Middle Eastern/Arab (*n* = 3), Turkish (*n* = 1), and "Other" (*n* = 11). The remaining four participants in Sample 2 indicated "prefer not to say" and were coded as missing value.

Furthermore, we asked for participants' religion, and separately coded whether or not participants were Muslim or non-Muslim. Our sample had 146 non-Muslim participants and 205 Muslim participants (four missing values). Although most Muslim participants were also ethnic minority members, we had all four ethnicity × religiosity combinations represented in our sample (Dutch Caucasian/non-Muslim *n* = 98; ethnic minority/non-Muslim *n* = 44; Dutch Caucasian/Muslim *n* = 14; ethnic minority/Muslim *n* = 191).

3.2 | Measures

3.2.1 | Conspiracy theories

We asked participants how probable or improbable they found 13 conspiracy theories (1 = *Highly improbable*, 5 = *Highly probable*). Two items were aggregated into an index of *Muslim conspiracy theories* ("ISIS was created by the United States and Israel, in order to create chaos in the Middle East and make Islam look bad" and "The United States carried out the attacks of 11 September 2001 themselves, in order to invade countries in the Middle East and make Islam look bad"; *r* = 0.77, *p* < 0.001). Two additional items were combined into an index of *Jewish conspiracy theories* ("The holocaust was largely made up in order to secure the State of Israel" and "Jewish bankers control the world economy and most governments"; *r* = 0.55, *p* < 0.001). We measured *economic conspiracy theories* with four items (*α* = 0.84; "The economic crisis of 2007 was created deliberately by bankers to make lower and middle income groups poorer, and themselves richer"; "The medical and pharmaceutical industry deliberately withhold a cure against cancer, in order to continue earning money from cancer patients"; "Big companies and financial institutions are closely connected with politics in order to weaken labor unions and decrease social securities"; and "Financial organizations such as the World Bank, IMF, and the European Central Bank are under the supervision of major companies to make the rich richer and the poor poorer"). The remaining five items formed an index of *other conspiracy theories* (*α* = 0.83; "All the important media companies are dominated by a left-wing elite that continuously promotes left-wing politics"; "Americans keep UFOs that landed on Earth hidden at an air base in Roswell"; "The Apollo-moon landings were fake and filmed by Americans in a studio"; "A secret society—the Illuminati—has controlled most governments for centuries in order to form one world government"; and "Princess Diana was murdered by the British Royal family because she knew too many secrets about this family").[2]

3.2.2 | Background variables

We measured political ideology as control variable (1 = *left wing*, 11 = *right wing*). Furthermore, we also measured education level of participants (1 = *University Master* to 7 = *Primary or No Education*; recoded such that high scores represent higher education levels. An eighth category read "Do not know/will not say" and was coded as missing).

3.2.3 | Personal and group-based deprivation

Given that we expected most ethnic and Muslim minority participants in Sample 1, we asked for personal and group-based deprivation only in that sample. To measure group-based deprivation, we asked the following four questions (1 = *Strongly disagree*, 4 = *Strongly agree*): "The hatred against Muslims increases in the Netherlands"; "Muslims increasingly are being discriminated in the Netherlands"; "I believe Islam is being suppressed in the West (i.e., Europe and America)"; and "I believe that Dutch people with a migration background are being suppressed in the Netherlands." These items were averaged into a reliable scale of group-based deprivation (*α* = 0.81).[3] As an index of personal deprivation, we measured participants' feelings of belongingness within the Netherlands through the following item: "To what extent do you feel like a Dutch citizen?" Participants responded to this item on a slider ranging from 0 (*absolutely not*) to 100 (*I feel completely*

[1]We report all data exclusions and all the measures that were assessed in both samples. We note here that each sample also contained a limited number of additional, sample-specific measures for different research purposes.

[2]We dropped a fourteenth item ("The AIDS virus was created and disseminated deliberately by the U.S. government to wipe out homosexuals and the Black population") from the analyses as we regarded its identity-relevance ambiguous: It describes a conspiracy against minority groups, but not the ones under investigation here. It is noteworthy, however, that on this item the effects of ethnicity and Muslim identity were significant, and in the predicted direction (*p*s < 0.003).

[3]We excluded three additional items of group-based deprivation for being conceptually confounded with conspiracy theories (e.g., "The political elite in the Netherlands tries to defame Islam") and one item for having many (i.e., 200) missing values.

TABLE 1 Hierarchical regression results—The relationships between ethnicity, Muslim identity, and belief in conspiracy theories

	Type of conspiracy theory							
	Muslim		Jewish		Economic		Other	
	B (*SE*)	95% CI of *B*	*B* (*SE*)	95% CI of *B*	*B* (*SE*)	95% CI of *B*	*B* (*SE*)	95% CI of *B*
Step 1								
Gender	0.25 (0.15)	[−0.04, 0.54]	0.07 (0.14)	[−0.20, 0.33]	−0.02 (0.11)	[−0.23, 0.19]	0.25 (0.11)*	[0.05, 0.46]
Age	−0.01 (0.01)	[−0.03, 0.01]	−0.00 (0.01)	[−0.02, 0.01]	0.01 (0.01)	[−0.01, 0.02]	0.01 (0.01)	[−0.01, 0.02]
Ideology	0.01 (0.03)	[−0.05, 0.07]	0.02 (0.03)	[−0.04, 0.07]	0.03 (0.02)	[−0.01, 0.07]	0.05 (0.02)*	[0.01, 0.09]
Education	−0.22 (0.07)**	[−0.35, −0.09]	−0.22 (0.06)***	[−0.34, −0.10]	−0.18 (0.05)***	[−0.28, −0.09]	−0.21 (0.05)***	[−0.30, −0.12]
Step 2								
Ethnicity	−0.26 (0.09)**	[−0.43, −0.08]	−0.22 (0.08)**	[−0.38, −0.07]	−0.24 (0.07)**	[−0.38, −0.10]	−0.18 (0.07)**	[−0.32, −0.05]
Muslim	−0.57 (0.09)***	[−0.74, −0.40]	−0.55 (0.08)***	[−0.70, −0.40]	−0.20 (0.07)**	[−0.33, −0.07]	−0.23 (0.07)***	[−0.36, −0.10]

Note. N = 355.

*p < 0.05. **p < 0.01. ***p < 0.001.

Dutch). Belongingness and group-based deprivation were moderately and negatively correlated (r = −0.25, p < 0.001).

4 | RESULTS

We analyzed the four conspiracy theories with hierarchical regression analyses. In Step 1, we entered the control variables gender, age, political ideology, and education. In Step 2, we entered the key predictor variables. All results reported below were similar if we ran the analyses without control variables. The regression models revealed no evidence for multicollinearity (all variance inflation factors <1.90).

4.1 | Ethnicity and Muslim identity

To analyze the independent effects of ethnicity and Muslim identity, we effect-coded both variables (ethnicity 1 = Dutch Caucasian, −1 = ethnic minority; Muslim identity 1 = non-Muslim, −1 = Muslim). We then added these variables in Step 2 of the regression models.

The regression results are displayed in Table 1. Step 1 was significant for all conspiracy theories: for Muslim conspiracy theories (R^2 = .04), F(4, 329) = 3.79, p = 0.005; for Jewish conspiracy theories (R^2 = 0.04), F(4, 329) = 3.47, p = 0.009; for economic conspiracy theories (R^2 = 0.06), F(4, 330) = 4.89, p = 0.001; and for other conspiracy theories (R^2 = 0.09), F(4, 330) = 8.19, p < 0.001. These effects were largely due to strong effects of education on all types of conspiracy theories, indicating that higher education levels predict decreased belief in conspiracy theories. This finding is consistent with previous research (Douglas, Sutton, Callan, Dawtry, & Harvey, 2016; Van Prooijen, 2017). Of the remaining control variables, we found effects of ideology and gender only on the "other" conspiracy theories, not on Islamic, Jewish, or economic conspiracy theories (see Table 1).

More important for the present purposes, Step 2 was significant for all conspiracy theories: for Muslim conspiracy theories (ΔR^2 = 0.28), F(2, 327) = 66.70, p < 0.001; for Jewish conspiracy theories (ΔR^2 = 0.29), F(2, 327) = 71.89, p < 0.001; for economic conspiracy theories (ΔR^2 = 0.14), F(2, 328) = 29.24, p < 0.001; and for other conspiracy theories (ΔR^2 = 0.12), F(2, 328) = 25.34, p < 0.001. Both ethnicity and Muslim identity were independent significant predictors in the regression model of all conspiracy theories (Table 1). The means are displayed in Table 2 and indicate that ethnic and Muslim minorities believe conspiracy theories more strongly, both for theories that are directly relevant for participants' Muslim identity (Muslim and Jewish conspiracy theories) and for theories unspecific for ethnic or Muslim minorities (economic and other conspiracy theories).[4]

TABLE 2 Means and standard deviations of belief in various conspiracy theories as function of ethnicity and Muslim identity

	Type of conspiracy theory							
	Muslim		Jewish		Economic		Other	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Ethnicity								
Dutch Caucasian	2.70	1.30	2.26	1.08	2.98	0.98	2.45	0.99
Ethnic minority	4.00	1.14	3.41	1.10	3.71	0.89	3.08	0.91
Muslim identity								
Non-Muslim	2.74	1.29	2.29	1.11	3.10	1.00	2.51	1.00
Muslim	4.17	1.03	3.57	0.99	3.74	0.86	3.12	0.87

Note. All ratings were on 5-point scales, with higher ratings indicating stronger belief in conspiracy theories.

As Sample 1 was drawn from a specific political party, we also analyzed the effects of minority status only in Sample 2. We first distinguished between majority members (i.e., Caucasian and non-Muslim; n = 88) and minority members (ethnic minority, Muslim, or both; n = 37).[5] Then, we conducted regression analyses with the control variables in Step 1, and minority status (effect coded: majority = 1, minority = −1) added in Step 2. Step 1 was significant for all four conspiracy theories (0.12 < R^2s < 0.24); 4.22 < Fs(4, 114) < 8.97; 0.004 < ps < 0.001, which was due to strong education effects on all dependent variables (−0.43 < βs < −0.31; ps < 0.001), although age

[4]We also ran a 2 (Muslim identity) × 2 (ethnicity) × 4 (conspiracy theory; within-subjects) analysis. This revealed a significant Muslim identity × conspiracy theory interaction, F(3, 340) = 19.86, p < 0.001, η^2 = 0.15, but no ethnicity × conspiracy theory interaction, F < 1. This suggests that the effects of Muslim identity, but not ethnicity, are stronger for identity-relevant than identity-irrelevant conspiracy theories.

[5]Note that it was impossible to analyze ethnicity and Muslim identity separately, as Sample 2 contained only four Muslim participants. Also note that a similar analysis on Sample 1 is problematic, as Sample 1 only contains 10 majority group members (i.e., Caucasian *and* non-Muslim).

TABLE 3 Hierarchical regression results—The relationships between feelings of belongingness within Dutch society, group-based deprivation, and belief in conspiracy theories (Sample 1)

	Type of conspiracy theory							
	Muslim		Jewish		Economic		Other	
	B (*SE*)	95% CI of *B*	*B* (*SE*)	95% CI of *B*	*B* (*SE*)	95% CI of *B*	*B* (*SE*)	95% CI of *B*
Step 1								
Gender	0.16 (0.16)	[−0.16, 0.47]	−0.02 (0.15)	[−0.32, 0.28]	−0.12 (0.13)	[−0.38, 0.13]	0.16 (0.13)	[−0.10, 0.42]
Age	−0.01 (0.01)	[−0.03, 0.01]	0.00 (0.01)	[−0.01, 0.02]	0.01 (0.01)	[−0.01, 0.03]	−0.00 (0.01)	[−0.02, 0.01]
Ideology	0.00 (0.03)	[−0.06, 0.06]	0.02 (0.03)	[−0.03, 0.08]	0.02 (0.03)	[−0.03, 0.07]	0.05 (0.03)	[−0.01, 0.10]
Education	−0.08 (0.07)	[−0.22, 0.06]	−0.09 (0.07)	[−0.23, 0.04]	−0.08 (0.06)	[−0.20, 0.03]	−0.15 (0.06)*	[−0.26, −0.03]
Minority	−0.33 (0.19)	[−0.71, 0.04]	−0.23 (0.18)	[−0.59, 0.13]	−0.35 (0.16)*	[−0.66, −0.04]	−0.07 (0.16)	[−0.25, 0.38]
Step 2								
Belonging	−0.01 (0.00)***	[−0.02, −0.005]	−0.01 (0.00)***	[−0.01, −0.00]	−0.01 (0.00)***	[−0.01, −0.005]	−0.01 (0.00)***	[−0.01, −0.005]
Group Depr.	0.42 (0.13)**	[0.16, 0.68]	0.38 (0.13)**	[0.13, 0.63]	0.31 (0.11)**	[0.10, 0.52]	0.24 (0.11)*	[0.02, 0.46]

Note. $N = 225$.

*$p < 0.05$. **$p < 0.01$. ***$p < 0.001$.

was also significant for economic ($\beta = 0.18$, $p = 0.037$) and other conspiracy theories ($\beta = 0.22$, $p = 0.011$). Minority status (Step 2), then, was significant for all conspiracy theories: Muslim conspiracy theories ($\Delta R^2 = 0.06$), $F(1, 113) = 8.42$, $p = 0.004$ (majority $M = 2.37$, $SD = 1.10$; minority $M = 3.26$, $SD = 1.33$); Jewish conspiracy theories, ($\Delta R^2 = 0.04$), $F(1, 113) = 5.51$, $p = 0.021$ (majority $M = 1.98$, $SD = 0.89$; minority $M = 2.64$, $SD = 1.28$); economic conspiracy theories, ($\Delta R^2 = 0.05$), $F(1, 113) = 8.04$, $p = 0.005$ (majority $M = 2.85$, $SD = 0.90$; minority $M = 3.53$, $SD = 0.95$); other conspiracy theories, ($\Delta R^2 = 0.04$), $F(1, 113) = 5.43$, $p = 0.022$ (majority $M = 2.23$, $SD = 0.85$; minority $M = 2.76$, $SD = 0.91$). These findings suggest that the effects observed here indeed are due to minority status and not party affiliation.

4.2 | Personal and group-based deprivation

We then analyzed whether in Sample 1 (which consisted mostly of ethnic and Muslim minority members) personal and group-based deprivation would predict conspiracy theories. This sample yields 95% power for a small-to-medium effect size ($f^2 = 0.07$). We entered the control variables and minority status in Step 1, after which we entered belonging and group-based deprivation in Step 2. The regression results are displayed in Table 3.

Step 1 was nonsignificant for Muslim conspiracy theories ($R^2 = 0.04$), $F(5, 196) = 1.64$, $p = 0.150$, Jewish conspiracy theories ($R^2 = 0.02$), $F < 1$, and economic conspiracy theories ($R^2 = 0.05$), $F(5, 196) = 1.87$, $p = 0.102$, and it was significant for other conspiracy theories ($R^2 = 0.06$), $F(5, 196) = 2.44$, $p = 0.036$. Intriguingly, in Sample 1, the effects of education did not emerge for three out of four conspiracy theories. Although not a direct purpose of the present research, this finding is consistent with previous arguments that the relationship between education and conspiracy beliefs may not emerge in populations that suffer from group-based deprivation (see Van Prooijen, 2017; p. 57).[6]

[6]The education × minority status interaction in the entire sample was nonsignificant for Muslim and Jewish conspiracy theories ($\beta = -0.06$ and $\beta = -0.06$, respectively; $ps > 0.23$) but significant for economic ($\beta = -0.17$, $p = 0.001$) and other conspiracy theories ($\beta = -0.13$, $p = 0.014$).

Step 2, then, was significant for all four conspiracy theories: for Muslim conspiracy theories ($\Delta R^2 = 0.15$), $F(2, 194) = 17.54$, $p < 0.001$, for Jewish conspiracy theories ($\Delta R^2 = 0.13$), $F(2, 194) = 15.10$, $p < 0.001$, for economic conspiracy theories ($\Delta R^2 = 0.16$), $F(2, 194) = 19.11$, $p < 0.001$, and for other conspiracy theories ($\Delta R^2 = 0.12$), $F(2, 194) = 13.76$, $p < 0.001$. As can be seen in Table 3, both forms of deprivation (i.e., decreased belonging and increased group-based deprivation) independently predict belief in all four conspiracy theories. These findings support the idea that feelings of deprivation at both levels are associated with belief in many conspiracy theories—including theories that are not directly relevant for citizens' minority status.

5 | DISCUSSION

The present study found that Dutch Muslims believe conspiracy theories more strongly than non-Muslims. We observed this effect not only on identity-relevant conspiracy theories (Muslim and Jewish conspiracy theories) but also on theories irrelevant for participants' Muslim identity (about the economic crisis, and other conspiracy theories such as that the Moon landings were fake). Furthermore, the contents of Muslim faith are a poor explanation for these findings: Ethnic minority status exerted similar effects on conspiracy beliefs, independent of Muslim identity. A more plausible explanation is offered by our findings on personal (i.e., low feelings belongingness in Dutch society) and group-based deprivation (i.e., the feeling that Muslims and ethnic minorities as a group are discriminated against): Both feelings of deprivation were strong predictors of conspiracy beliefs. These findings suggest that both forms of deprivation independently contribute to a perception of the social and political system as rigged, stimulating belief in both identity-relevant and irrelevant conspiracy theories.

The present findings make two novel contributions. First, these findings provide direct evidence for the notion that marginalized minorities are more susceptible to conspiracy theories even when these theories are conceptually irrelevant for their marginalized status in society (cf. Goertzel, 1994). As such, the study presented here may

expand insights into the important question of how marginalized minorities perceive, and function in, a society that deprives them of equality. Second, the study presented here offers insights into the question why marginalized minorities are more likely to believe conspiracy theories, by pointing at the independent roles of two levels of deprivation. While the relationships between both forms of deprivation and conspiracy beliefs are correlational, these relationships are consistent with other insights in the emerging field of conspiracy theories (e.g., Cichocka et al., 2016; Graeupner & Coman, 2017; Van Prooijen, 2018).

5.1 | Limitations and future research

Given the difficulty of getting a large sample of marginalized minority participants, the present contribution offers only one study. Yet our study was well-powered and displayed effects that are consistent with previous insights on the relationship between minorities and conspiracy theories specifically (Bird & Bogart, 2003; Crocker et al., 1999; Goertzel, 1994; Thorburn & Bogart, 2005) as well as of emotional and social antecedents of conspiracy theories more generally (for overviews, see Douglas et al., 2017; Van Prooijen, 2018). The effects presented here hence are likely to replicate in follow-up studies.

One limitation of our approach is that the empirical evidence for our explanatory variables—personal and group-based deprivation—is correlational. Based on the study presented here, it is hence impossible to exclude the possibility of reverse causality (i.e., belief in conspiracy theories cause feelings of deprivation among minorities). While this possibility does not explain the more general finding that marginalized minorities are highly susceptible to conspiracy theories, future research may expand on our findings by investigating the causal impact of both types of deprivation on conspiracy theories.

Furthermore, large parts of our minority sample was likely to experience relatively high levels of deprivation, given their affiliation with a political party focused on improving the rights of Muslims in the Netherlands. Would minorities that do not feel marginalized differ in their conspiracy beliefs from majority members? Our line of reasoning suggests that decreased feelings of deprivation among minority members predict decreased conspiracy beliefs. Future research may more explicitly focus on distinguishing between minority groups that do and do not feel marginalized in society. Moreover, future research may test whether the effects described here generalize to other types of minorities that often experience deprivation (e.g., sexual minorities).

6 | CONCLUSION

The results presented here fit into a research domain that seeks to psychologically explain people's tendency to believe conspiracy theories (Douglas et al., 2017; Van Prooijen, 2018). Here, we highlighted the role of marginalized minority status and found that (a) these minorities are more susceptible to conspiracy theories, even when these theories are irrelevant for their deprived standing in society, and (b) both personal and group-based deprivations contribute to conspiracy belief. We conclude that conspiracy theories are common among both ethnic and Muslim minorities.

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REFERENCES

Abalakina-Paap, M., Stephan, W., Craig, T., & Gregory, W. L. (1999). Beliefs in conspiracies. *Political Psychology*, *20*, 637–647.

Bale, J. M. (2007). Political paranoia v. political realism: On distinguishing between bogus conspiracy theories and genuine conspiratorial politics. *Patterns of Prejudice*, *41*, 45–60.

Bird, S. T., & Bogart, L. M. (2003). Birth control beliefs, perceived discrimination, and contraception among African Americans. *Journal of Health Psychology*, *8*, 263–276.

Branscombe, N. R., Schmitt, M. T., & Harvey, R. D. (1999). Perceiving pervasive discrimination among African Americans: Implications for group identification and well-being. *Journal of Personality and Social Psychology*, *77*, 135–149.

Cichocka, A., Marchlewska, M., Golec de Zavala, A., & Olechowski, M. (2016). "They will not control us": In-group positivity and belief in intergroup conspiracies. *British Journal of Psychology*, *107*, 556–576.

Crocker, J., Luhtanen, R., Broadnax, S., & Blaine, B. E. (1999). Belief in U.S. government conspiracies against blacks among black and white college students: Powerlessness or system blame? *Personality and Social Psychology Bulletin*, *25*, 941–953.

Crocker, J., & Major, B. (1989). Social stigma and self-esteem: The self-protective properties of stigma. *Psychological Review*, *96*, 608–630.

Douglas, K. M., Cichocka, A., & Sutton, R. M. (2017). The psychology of conspiracy theories. *Current Directions in Psychological Science*, *26*, 538–542.

Douglas, K. M., Sutton, R. M., Callan, M. J., Dawtry, R. J., & Harvey, A. J. (2016). Someone is pulling the strings: Hypersensitive agency detection and belief in conspiracy theories. *Thinking and Reasoning*, *22*, 57–77.

Goertzel, T. (1994). Belief in conspiracy theories. *Political Psychology*, *15*, 733–744.

Graeupner, D., & Coman, A. (2017). The dark side of meaning-making: How social exclusion leads to superstitious thinking. *Journal of Experimental Social Psychology*, *69*, 218–222.

Grzesiak-Feldman, M. (2013). The effect of high-anxiety situations on conspiracy thinking. *Current Psychology*, *32*, 100–118.

Park, C. L. (2010). Making sense of the meaning literature: An integrative review of meaning making and its effects on adjustment to stressful life events. *Psychological Bulletin*, *136*, 257–301.

Simmons, W. P., & Parsons, S. (2005). Beliefs in conspiracy theories among African Americans: A comparison of elites and masses. *Social Science Quarterly*, *86*, 582–598.

Smith, H. J., Pettigrew, T. F., Pippin, G. M., & Bialosiewicz, S. (2012). Relative deprivation: A theoretical and meta-analytic review. *Personality and Social Psychology Review*, *16*, 203–232.

Sullivan, D., Landau, M. J., & Rothschild, Z. K. (2010). An existential function of enemyship: Evidence that people attribute influence to personal and political enemies to compensate for threats to control. *Journal of Personality and Social Psychology*, *98*, 434–449.

Swami, V., Chamorro-Premuzic, T., & Furnham, A. (2010). Unanswered questions: A preliminary investigation of personality and individual difference predictors of 9/11 conspiracist beliefs. *Applied Cognitive Psychology*, *24*, 749–761.

Swami, V., Coles, R., Stieger, S., Pietschnig, J., Furnham, A., Rehim, S., & Voracek, M. (2011). Conspiracist ideation in Britain and Austria: Evidence of a monological belief system and associations between individual psychological differences and real-world and fictitious conspiracy theories. *British Journal of Psychology*, *102*, 443–463.

Thorburn, S., & Bogart, L. M. (2005). Conspiracy beliefs about birth control: Barriers to pregnancy prevention among African Americans of reproductive age. *Health Education & Behavior*, *32*, 474–487.

Van Prooijen, J.-W. (2016). Sometimes inclusion breeds suspicion: Self-uncertainty and belongingness predict belief in conspiracy theories. *European Journal of Social Psychology*, *46*, 267–279.

Van Prooijen, J.-W. (2017). Why education predicts decreased belief in conspiracy theories. *Applied Cognitive Psychology*, *31*, 50–58.

Van Prooijen, J.-W. (2018). *The psychology of conspiracy theories*. Oxon, UK: Routledge.

Van Prooijen, J.-W., & Acker, M. (2015). The influence of control on belief in conspiracy theories: Conceptual and applied extensions. *Applied Cognitive Psychology*, *29*, 753–761.

Van Prooijen, J.-W., Douglas, K., & De Inocencio, C. (2018). Connecting the dots: Illusory pattern perception predicts beliefs in conspiracies and the supernatural. *European Journal of Social Psychology*, *48*, 320–335.

Van Prooijen, J.-W., & Jostmann, N. B. (2013). Belief in conspiracy theories: The influence of uncertainty and perceived morality. *European Journal of Social Psychology*, *43*, 109–115.

Van Prooijen, J.-W., & Van Dijk, E. (2014). When consequence size predicts belief in conspiracy theories: The moderating role of perspective taking. *Journal of Experimental Social Psychology*, *55*, 63–73.

Van Prooijen, J.-W., & Van Lange, P. A. M. (2014). *Power, politics, and paranoia: Why people are suspicious of their leaders*. Cambridge, UK: Cambridge University Press.

Whitson, J. A., & Galinsky, A. D. (2008). Lacking control increases illusory pattern perception. *Science*, *322*, 115–117.

Whitson, J. A., Galinsky, A. D., & Kay, A. (2015). The emotional roots of conspiratorial perceptions, system justification, and belief in the paranormal. *Journal of Experimental Social Psychology*, *56*, 89–95.

Wood, M. J., Douglas, K. M., & Sutton, R. M. (2012). Dead and alive: Beliefs in contradictory conspiracy theories. *Social Psychological and Personality Science*, *3*, 767–773.

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